

Volatile Organic Compounds (VOC) Reasonably Available Control Technology (RACT) Env-A 1200

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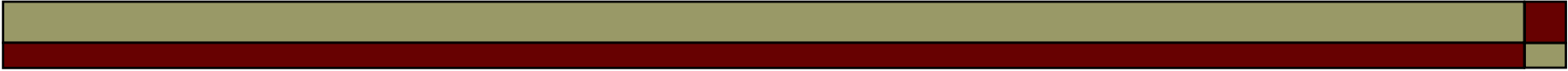
Definitions/Abbreviations

- Volatile Organic Compound (VOC)
 - Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions.
 - Does not include any compound designated in 40 CFR 51.100(s).



Why?

- ❑ Section 184 of the Clean Air Act
- ❑ States located within the Ozone Transport Region shall implement RACT for all sources covered by a control technique guideline (CTG) issued by EPA.
- ❑ CTG's for various source categories were updated in 2006, 2007 and 2008

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- ❑ Effective date of “new” rule 6/1/11.
 - ❑ “Existing source” means a source that was operational prior to 6/1/11.

Definitions/Abbreviations

- TPE = Theoretical Potential to Emit
= emissions that would occur prior to the application of add-on controls based on either (a) continuous operation (8760 hr/yr) under maximum production capacity using coating or ink with highest VOC content used in practice by the source; or (b) hours of operation and/or process conditions that are limited by federally enforceable permit conditions.
- Actuals = Actual emissions, before controls



Definitions/Abbreviations

- tpy = tons per consecutive 12-month period
- lb VOC/gal = pounds of VOC per gallon of coating, as applied, excluding water and exempt compounds

New Source Categories

With one exception – requirements not applicable until January 1, 2016

Env-A 1214 – Flat Wood Paneling Coating

- Applicability Threshold
 - Actuals ≥ 3 tpy
- Work Practice Standards (applicable 6/1/11)
- Compliance Standards
 - Control efficiency of 90%;
 - Emission limit of 2.9 lb VOC/gal of solids; or
 - Emission limit of 2.1 lb VOC/gal of material

Env- A 1219 – Fiberglass Boat Manufacturing

- Applicability Threshold
 - Actuals ≥ 3 tpy from use of gel coats, resins and materials used to clean application equipment
- Requirements: various options are available. See the rule for details.

Env-A 1220 – Miscellaneous Industrial Adhesives

- Applicability Threshold
 - Actuals ≥ 3 tpy
- Compliance Standards
 - VOC Content Limits – Table 1220-1; or
 - Control efficiency of 85%
- Application Methods
- Work Practice Standards

Categories that were Modified

Existing source that was previously not subject to rule – have until January 1, 2016 to comply.

Env-A 1207 – Paper, Fabric, Film and Foil Substrates Coating

- Old Rule Applicability
 - $\text{TPE} \geq 10 \text{ tpy}$
- New Rule
 - Actuals $\geq 3 \text{ tpy}$ – work practice standards
 - $\text{TPE} \geq 10 \text{ tpy}$ and $< 25 \text{ tpy}$
 - limit = 2.9 lb VOC/gal
 - $\text{TPE} \geq 25 \text{ tpy}$
 - Prior to 1/1/16 limit = 2.9 lb VOC/gal
 - After 1/1/16 limits in Table 1207-1



Env-A 1209 – Metal Furniture Coating

- Old Rule Applicability
 - $\text{TPE} \geq 10 \text{ tpy}$
- New Rule Applicability
 - $\text{Actuals} \geq 3 \text{ tpy}$
- Work Practice Standards and Application Techniques
- Compliance Limits
 - Emission limits – Table 1209-1; or
 - Control efficiency of 90%

Env-A 1212 – Miscellaneous Metal and Plastic Parts Coating

- ❑ Old Rule Applicability
 - $\text{TPE} \geq 10 \text{ tpy}$ for metal parts; $\text{TPE} \geq 50 \text{ tpy}$ for plastic
- ❑ New Rule Applicability
 - $\text{Actuals} \geq 3 \text{ tpy}$
- ❑ Work Practice Standards and Application Techniques
- ❑ Compliance Limits
 - Emission limits – Tables 1212-1, 1212-3, 1212-5, 1212-7 or 1212-9; or
 - Control efficiency of 90%

Env-A 1215 – Rotogravure and Flexographic Printing

- Most of rule Unchanged
 - Applicability threshold $\text{TPE} \geq 50 \text{ tpy}$
 - VOC Content Standards; or
 - Control Equipment Standards
- Except for Flexible-Packaging Printing
 - Applicability threshold Actuals $\geq 3 \text{ tpy}$ then work practice standards apply
 - If $\text{TPE} \geq 25 \text{ tpy}$, then emission standards or control requirements apply

Env-A 1216 – Offset Lithographic Printing

- Old Rule Applicability
 - $\text{TPE} \geq 50 \text{ tpy}$
- New Rule
 - $\text{Actuals} \geq 3 \text{ tpy}$
 - Cleaning material control requirements
 - $\text{TPE} \geq 25 \text{ tpy}$ for each dryer
 - Dryer installed before 6/1/11 – control by 90%
 - Dryer installed after 6/1/11 – control by 95%
 - Fountain solution limits

Env-A 1221 – Industrial Cleaning Solvents

- No changes to solvent metal cleaning
- Added 1221.05 – Use of Industrial Cleaning Solvents
 - Applicability Actuals ≥ 3 tpy
 - Many exemptions – for example
 - Cleaning of medical devices or pharmaceuticals
 - Cleaning of electrical and electronic components

Unchanged Source Categories



Env-A 1206 – Metal Can Coating

- Applicability Threshold
 - $\text{TPE} \geq 10 \text{ tpy}$
- Emission limits stated in Env-A 1206.02

Env-A 1208 – Vinyl and Urethane Substrate Coating

- Applicability Threshold
 - $\text{TPE} \geq 10 \text{ tpy}$
- Emission Limit
 - 3.8 lb VOC/gal

Env-A 1210 – Magnetic Wire Insulation Coating

- Applicability Threshold
 - $\text{TPE} \geq 10 \text{ tpy}$
- Emission Limit
 - 1.7 lb VOC/gal



Env-A 1211 – Metal Coils Coating

- Applicability Threshold
 - $\text{TPE} \geq 10 \text{ tpy}$
- Emission Limit
 - 2.6 lb VOC/gal

Env-A 1213 – Wood Furniture, Burial Caskets, and Gunstock Coating

- Applicability Thresholds
 - Wood furniture coating – $\text{TPE} \geq 25 \text{ tpy}$
 - Burial Caskets and Gunstock Coating – $\text{TPE} \geq 50 \text{ tpy}$
- Various compliance standards
 - Emission limits
 - Application techniques
 - Operational requirements

Env-A 1217 – VOL Storage and Transfer

- Storage Tanks
 - Applicability based on type and size of tank
 - Tanks must be equipped with devices or seals to minimize emissions
- Bulk Gasoline Loading Terminals
 - Applicability - Daily throughput of at least 20,000 gallons in any consecutive 30-day period



Env-A 1218 – Cutback and Emulsified Asphalt

- Applies to sources using cut-back or emulsified asphalt in the paving of public roads or highways

Env-A 1222 – Miscellaneous and Multicategory Sources

- Applicability threshold
 - $TPE \geq 50$ tpy or
 - For multicategory sources, where the individual source category thresholds are met – may need to comply with individual category rules
- Five Control Options

Env-A 1222 – Miscellaneous and Multicategory Sources

□ Control Options

1. Install capture/control system that reduces facility-wide emissions by 81%
2. Reduce VOC use and emissions by 20% of 1990 levels
3. For unclassifiable coatings limit to 3.5 lb VOC/gal
4. Comply with the provisions of the individual source categories for classifiable processes
5. Obtain a source-specific RACT Order

Other sections of Rule



Alternative Compliance Procedures

- ❑ Can comply with a “modified control technique,” including the use of emission credits, in accordance with RACT order provisions.
- ❑ Can comply with emission limits by implementing add-on controls or a bubble and complying with the solids-based emission rate limit calculated using Env-A 1205.01(d).



Minor Core Activities

- Any core activity at a source for which the aggregate VOC emissions do not exceed:
 - The RACT applicability emissions threshold for a relevant category; and
 - A total of 5 tpy
- Minor core activities are exempt from RACT requirements



Once-In, Always-In

- Env-A 1201.03(c) - Once a source becomes subject to the requirements of a source category, the source will remain subject to those requirements even if its emissions later fall below the relevant RACT applicability threshold.

Applications Due for Existing Sources?

- ❑ To opt out of any new requirements – Application due 5/31/13.
- ❑ Permitted source able to comply with new rule – Application due at time of renewal of existing permit.
- ❑ Permitted source needing to make changes prior to 2016 or currently not permitted – Application should be submitted prior to making changes and preferably no later than 7/1/15.